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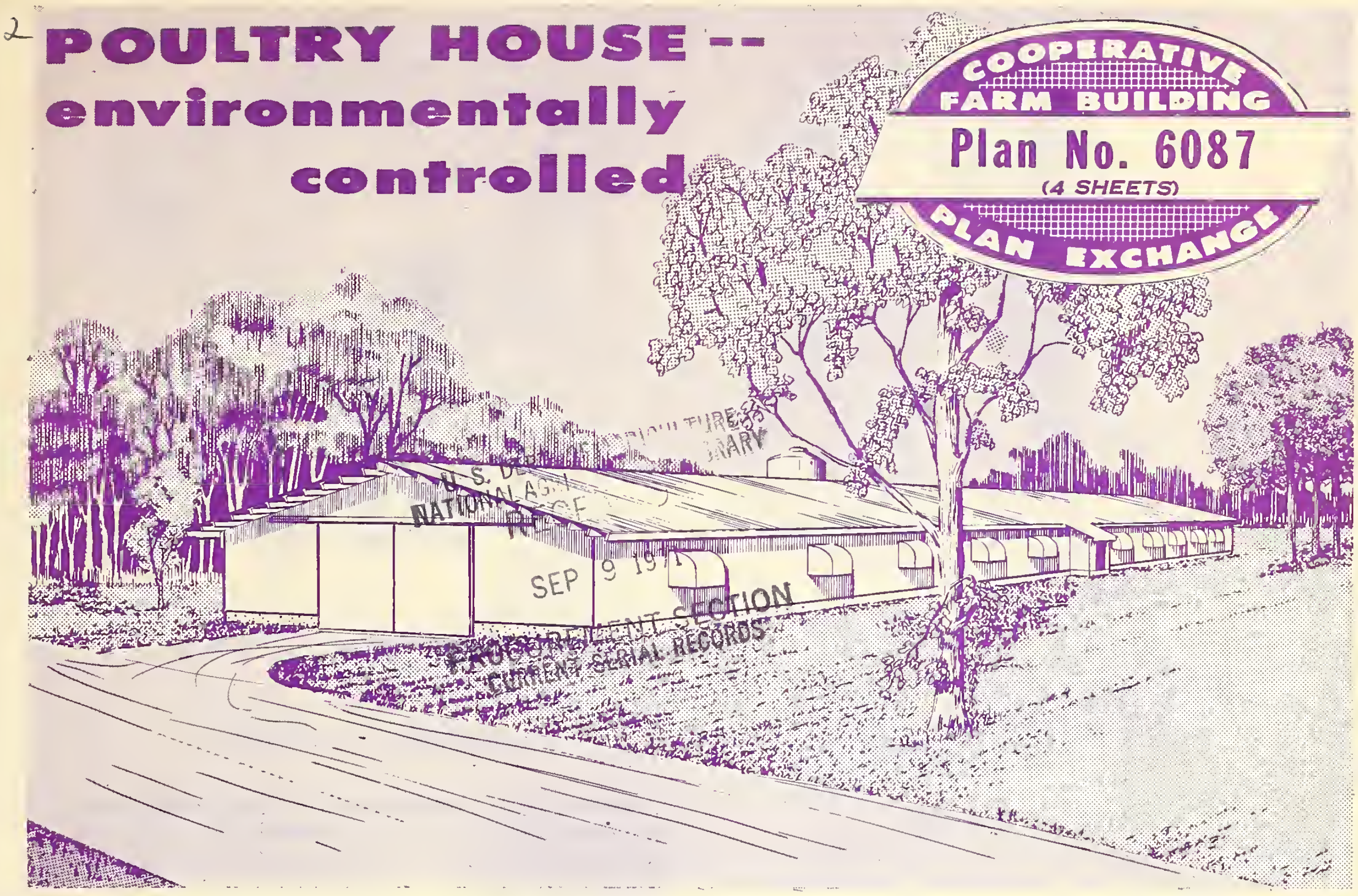
#1203

POULTRY HOUSE -- environmentally controlled

COOPERATIVE FARM BUILDING
Plan No. 6087
(4 SHEETS)
PLAN EXCHANGE



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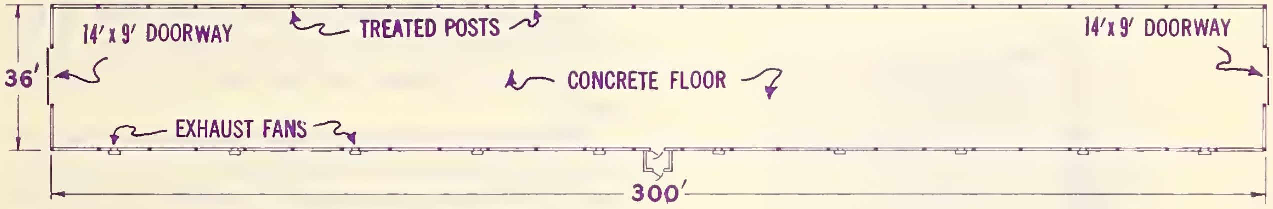

In this poultry house, developed at Auburn University, Auburn, Ala., environmental control is featured. The facility is intended for use in the production of broilers or replacement pullets and will enable the poultryman to control the inside environment by regulating the ventilation rate, supplemental heat input, and the light intensity.

Until electricity became available on the farm, dependence on natural—or gravity—ventilation for poultry houses was necessary in all parts of the country. Then, of course, flocks were smaller and bird density was lower, so environmental control was not as critical a problem as it is today.

To obtain the benefits of environmentally controlled poultry housing—such as high bird densities, better feed conversion and more efficient production—a good operation and maintenance program is essential.

The house is totally enclosed and windowless, so positive ventilation is necessary at all times when the house is in use. A battery-operated alarm system should be provided in the house to alert the operator if an electrical power failure should occur. A standby generating unit that will supply power for the ventilation system during an emergency would be a worthwhile investment. Such a unit could be completely self-contained and arranged to start automatically when needed, or it could be just a generator designed to be driven by the power takeoff shaft of a tractor.

The house is insulated to conserve heat and to reduce the possibility of moisture condensation during cold weather and to prevent the excessive buildup of heat within the building during hot weather.

The house shown has a capacity of about 13,000 birds at a density of 0.8 square foot per bird. The length

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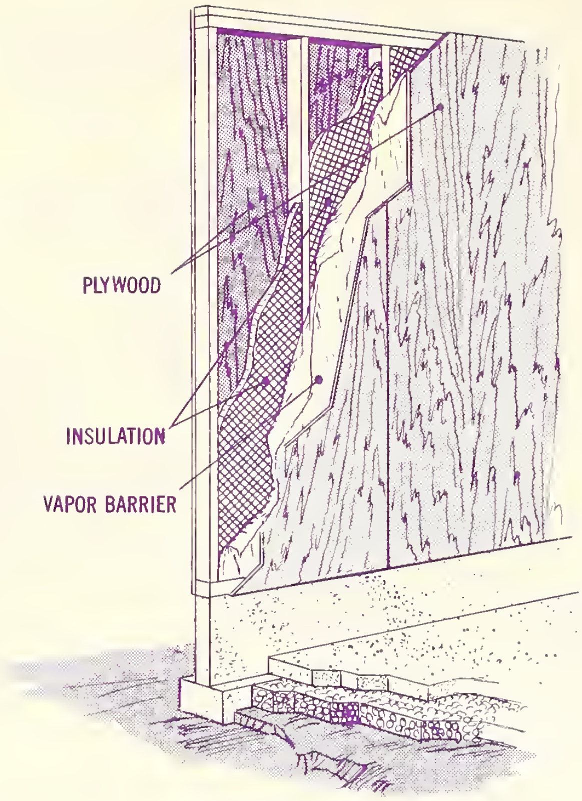

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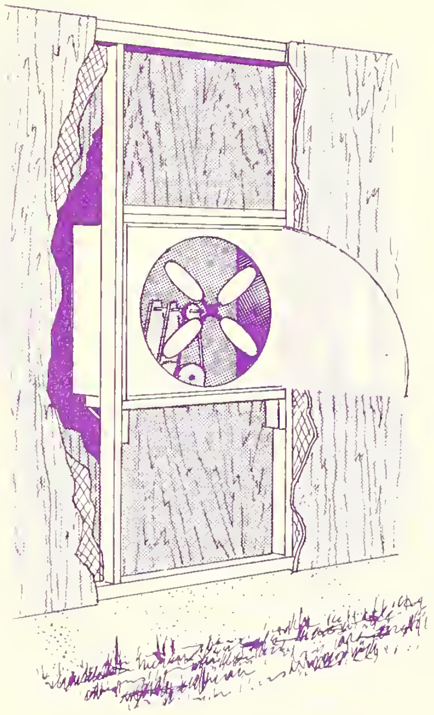
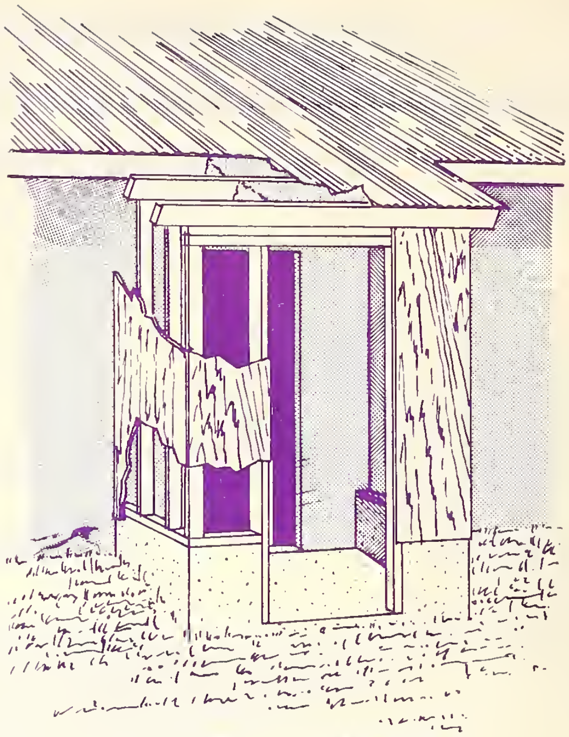


CUTAWAY OF FAN

of the house may be varied as desired, in units of 12 feet. Each additional unit would increase the capacity by about 530 birds.



CUTAWAY OF ENTRANCE

Lighting levels ranging from ½ to 1 footcandle should be maintained to minimize cannibalism among the birds and for more efficient feed conversion and production levels.

The floor is a 4-inch-thick concrete slab. The surface under the floor should be well-tamped gravel, covered with a vapor barrier material before the concrete is poured.

The walls are of composite construction with squared posts (pole-type construction) spaced 12 feet apart for the load bearing or structural members. The curtain walls between the posts are constructed on 2-by-4 wood framing with studs placed 2 feet on centers. Insulation is placed between studs, and 6-mil vapor barrier material covers the interior sides of the wall. An exterior type plywood is used for finishing both interior and exterior wall surfaces.

Clear-span, commercially fabricated trusses support the roof and give the house a completely unobstructed interior. The large doors in the end walls permit the use of mobile power equipment for cleaning the building between flocks. The trusses selected must be suitable for use in your area. Consult your State extension agricultural engineer or your county agricultural agent for information on the building requirements in your locality.

Working drawings may be obtained from the extension agricultural engineer at your State university. There may be a small charge to cover cost of printing.

If you do not know the location of your State university, send your request to Agricultural Engineer, Extension Service, U.S. Department of Agriculture, Washington, D.C. 20250. He will forward your request to the correct university.

ORDER PLAN NO. 6087, POULTRY HOUSE—ENVIRONMENTALLY CONTROLLED.

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